The Big Picture - Gas Grid: Fuel for all

The Prime Minister laid the foundation stone for City Gas Distribution (CGD) projects across 129 districts. **The project was recently granted by the Petroleum and Natural Gas Regulatory Board (PNGRB)**, and, would d**istribute gas to around half of the country's population in 26 states and Union Territories.** It is part of a larger plan to shift towards an environment friendlier gas-based economy. The development of CGD networks will increase the availability of clean cooking fuel or Piped Natural Gas (PNG) and Compressed Natural Gas (CNG) for consumers.

What is City Gas Distribution?

- The world runs on energy. Conventional fuels such as petrol and diesel have been in use for decades. But the current demand-supply gap in energy, depletion of fossil fuels and environmental constraints have created a necessity for exploring **alternative energy resources which are cleaner and environment-friendly.**
- Natural gas is being considered as the fuel of the day. **Natural Gas Distribution or City Gas Distribution (CGD) is a growing sector that aims to provide an uninterrupted supply of gas to domestic, commercial and industrial customers in the form of PNG and CNG.**
- **The present mode of delivery of gas is through cylinders which is a costly affair.** CGD system uses a pipeline system for transport of gas and their distribution among consumers.

National Gas Grid

Objectives

- **To remove regional imbalance** within the country with regard to access to natural gas and provide clean and green fuel throughout the country.
- **To connect gas sources to major demand centres** and ensure availability of gas to consumers in various sectors.

Implications

- Gas delivered via pipeline in the urban households would minimize the use of gas cylinders. These empty gas cylinders can be shifted to the rural area to deliver cooking gas. This will be a major boost to achieve accessibility of clean cooking fuel to all the households in the rural areas.
- Natural gas is less costly when compared with other conventional fuels. Pipeline delivery comparatively immunizes against inflation of transportation costs.
- Natural gas is a cleaner burning fuel that has less impact on the environment. Natural gas fireplaces can reduce up to 99% of the number of pollutants and particles emitted into the air compared to wood. Industries which use “dirty fuel” to power their project, can shift to cleaner fuel. Thereby, natural gas can considerably bring down air pollution level.
- Most importantly, this project would bring down government subsidy to LPG. Also, siphoning of cylinders to black market would come to an end.

Issues Involved

- **Lack of adequate compensation:** The amount of compensation paid over whose land the pipe is

being laid is minimal.

- **Legislative constraints:** Unlike power which is a concurrent subject, petroleum (consequently, gas) is in the union list. Since the gas pipeline will spread into the remotest corners of the state, the central government has to reach out to the state well in advance so as to facilitate land availability for the project.
- **Safety concerns:** Safety is one of the main issues involved. The dealers have to educate the consumer regarding the new system.
- **Irregularities:** Irregular supply of gas has plagued the domestic market for quite some time. The domestic production is not adequate and we are mostly dependent on the import which again is vulnerable to fluctuations in international prices and geopolitical turmoil.
- **Logistic and Infrastructural issues:** Low penetration of gas-based equipment and appliances, manpower inadequacy, no separate corridors available in city area for laying of gas pipelines.

Way Forward

- **First and foremost, the government should build adequate infrastructure, either with the help of the private sector or through Public Private Partnership.** The government needs to take leadership (viability gap funding) in order to ensure that the whole value chain moves in a synchronized manner and ensures commercial viability.
- **The rational pricing of the gas is sin** quo non**.** Both the customers and the private investors have to be protected by devising the right mechanism to price the gas.
- The initial cost of laying the pipeline per consumer has been estimated at around Rs 14000 to Rs 18500. Hence, in this regard, the government should intervene by adequately subsidizing the initial setup.
- **Natural gas is also used in sectors like mainly power generation and fertilizer production, etc.** Hence, the proper allocation must be made with regard to gas for each sector. A certain portion of the gas has to be allocated for the CGD - a steady flow of gas should be ensured for it.
- **The consumers have to be encouraged to shift to PNG from gas cylinders.** The government should incentivize the procedure through subsidy and at the same time assuring the customers of uninterrupted supply.

DRISHTI INPUT

Pradhan Mantri Urja Yojana

- The ambitious “Urja Ganga” gas pipeline project aims to provide piped cooking gas to residents in Varanasi within two years and in another year after that, it would cater to needs of people in Jharkhand, Bihar, Odisha, and West Bengal.
- It will cater to the energy needs of five states, covering 40 districts and 2,600 villages.
- It will pave way for the revival of three large fertilizer plants, enable industrialization of over 20 cities and development of city gas network in 7 cities, generating a large number of jobs.